

# Product datasheet

Specifications



## Conzerv Power and Energy meter - inst., pulse, RS485, THD, 15th Har, Class 0.2

METSEEM6400NGRSCL2

### Main

Range	EasyLogic
Product name	EM6400NG+ RS-485
Product or component type	Energy meter

### Complementary

Power quality analysis	up to the 15th harmonic
Device application	Power monitoring

Type of measurement	Current Voltage Frequency Apparent energy Apparent power Active and reactive energy Active and reactive power
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Metering type	Demand current I1, I2, I3 Active, reactive, apparent energy (signed, four quadrant) Active power P, P1, P2, P3 Unbalance current Average current Iavg Peak demand currents Average voltage Vavg Phase currents Reactive power Q, Q1, Q2, Q3 Power factor and displacement PF (signed, four quadrant) Unbalance voltage Calculated neutral current Voltage U21, U32, U13, V1, V2, V3 Peak demand power PM, QM, SM Apparent power S, S1, S2, S3 Demand power P, Q, S
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[Us] rated supply voltage	40...300 V AC 45...65 Hz 40...300 V DC
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Network frequency	60 Hz 50 Hz
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[In] rated current	5 A 1 A
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Type of network	3P 2P 2P + N 1P + N 3P + N
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Maximum power consumption in VA	6 VA at 277 V between phase and neutral
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Maximum power consumption in W	2 W at 277 V
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Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<b>Display type</b>	7 segments LED
<b>Display colour</b>	Red
<b>Messages display capacity</b>	3 fields of 4 characters
<b>Display digits</b>	12 digit(s) - 14.2 mm in height
<b>Communication of data</b>	Net energy Energy metering Reading of time-stamped measurements and events Total energy
<b>Tamperproof of settings</b>	Protected by access code
<b>Sampling rate</b>	64 samples/cycle
<b>Measurement current</b>	5...6000 mA
<b>Signal</b>	Current 0...12 A (impedance 0.3 MOhm)6 x Voltage (impedance 5 MOhm)4 x
<b>Measurement voltage</b>	35...480 V AC 45...65 Hz between phases 35...277 V AC 45...65 Hz between phase and neutral 35...600 V AC 45...65 Hz between phases 35...347 V AC 45...65 Hz between phase and neutral 600...999000 V AC 45...65 Hz with external VT
<b>Frequency measurement range</b>	45...65 Hz
<b>Measurement accuracy</b>	Current +/- 0.5 % Voltage +/- 0.5 % Power +/- 0.5 % Frequency +/- 0.05 % Power factor +/- 0.01
<b>Accuracy class</b>	Class 1 active energy conforming to IEC 62053-21 Class 2 reactive energy conforming to IEC 62053-23 Class 5P harmonic distortion (I THD & U THD) conforming to IEC 61557-12 Class 5P individual harmonics up to the 15th conforming to IEC 61557-12
<b>Number of outputs</b>	0
<b>Demand intervals</b>	Configurable from 1 to 60 min
<b>Information displayed</b>	Voltage (min/max) Current (min/max) Power factor (min/max) Frequency (min/max) Active power (min/max) Apparent power (min/max) Reactive power (min/max) Time (min/max) Demand current (past value) Demand current (present value) Demand power (past value) Demand power (present value)
<b>Local signalling</b>	Green LED: activity Red LED: output signal 1...9999000 pulse/ k_h (kWh, kVAh, kVARh) Green LED: communication status
<b>Communication port protocol</b>	Modbus at 4800 bps, 9600 bps, 19200 bps, 38.4 Kbps even/odd or none - 2 wires, insulation 2500 V
<b>Communication port support</b>	RS485
<b>Data recording</b>	Time stamping Energy consumption logs Min/max of instantaneous values
<b>Material</b>	Polycarbonate
<b>Flame retardance</b>	V-0 conforming to UL 94
<b>Mounting mode</b>	Panel-mounted Flush-mounted
<b>Mounting support</b>	Framework
<b>Fixing mode</b>	By clamp
<b>Installation category</b>	III
<b>Type of installation</b>	Indoor installation
<b>Measurement category</b>	Category III 480 V Category II 480...600 V

<b>Electrical insulation class</b>	Class II
<b>Connections - terminals</b>	Current circuit: screw clamp terminals (bottom) 2.08...3.31 mm <sup>2</sup> cable(s) Voltage circuit: screw clamp terminals (top) 0.82...3.31 mm <sup>2</sup> cable(s) Control circuit: screw clamp terminals (top) 0.82...3.31 mm <sup>2</sup> cable(s) Communication: screw clamp terminals 0.33...3.31 mm <sup>2</sup> cable(s)
<b>Tightening torque</b>	Current circuit: 0.9...1 N.m Philips No 2 screwdriver Voltage circuit: 0.9...1 N.m Philips No 2 screwdriver Control circuit: 0.9...1 N.m Philips No 2 screwdriver Communication: 0.9...1 N.m Philips No 2 screwdriver
<b>Wire stripping length</b>	Current circuit: 3.68 mm Voltage circuit: 7 mm Control circuit: 7 mm Communication: 7 mm
<b>Standards</b>	IEC 61010-1:ed. 3 UL 61010-1:ed. 3
<b>Product certifications</b>	CE conforming to IEC 61010-1 CULus conforming to UL 61010-1 CULus conforming to CSA C22.2 No 61010-1 C-Tick
<b>Width</b>	96 mm
<b>Depth</b>	73 mm panel: 13 mm outside:
<b>Height</b>	96 mm
<b>Net weight</b>	600 g

## Environment

<b>Electromagnetic compatibility</b>	Electrostatic discharge conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 Surge immunity test conforming to IEC 61000-4-5 Conducted RF disturbances conforming to IEC 61000-4-6 Magnetic field at power frequency conforming to IEC 61000-4-8 Voltage dips and interruptions immunity test conforming to IEC 61000-4-11 Emission tests conforming to FCC part 15 class A
<b>Overvoltage category</b>	III
<b>IP degree of protection</b>	IP51 front: conforming to IEC 60529 IP30 body: conforming to IEC 60529
<b>Relative humidity</b>	5...95 % at 50 °C
<b>Pollution degree</b>	2
<b>Ambient air temperature for operation</b>	-10...60 °C
<b>Ambient air temperature for storage</b>	-20...70 °C
<b>Operating altitude</b>	<= 2000 m
<b>Service life</b>	7 year(s)

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	7.2 cm
<b>Package 1 Width</b>	9.6 cm
<b>Package 1 Length</b>	9.6 cm
<b>Package 1 Weight</b>	0.5 kg

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>

<b>EU RoHS Directive</b>	Compliant <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	Yes
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>

**Recommended replacement(s)**